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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.	
10/619,690	07/16/2003	Oliver Kienzle	007413-057	7132	
21839	21839 7590 06/30/2004			EXAMINER	
	DANE SWECKER & N	SMITH, JOHNNIE L			
POST OFFICE BOX 1404 ALEXANDRIA, VA 22313-1404			ART UNIT	PAPER NUMBER	
	,		2881		
				DATE MAILED: 06/30/2004	

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)				
	10/619,690	KIENZLE ET AL.				
Office Action Summary	Examiner	Art Unit				
	Johnnie L Smith II	2881				
The MAILING DATE of this communication app Period for Reply	ars on the cover sheet with the co	orrespondence address				
A SHORTENED STATUTORY PERIOD FOR REPLY THE MAILING DATE OF THIS COMMUNICATION.  - Extensions of time may be available under the provisions of 37 CFR 1.13 after SIX (6) MONTHS from the mailing date of this communication.  - If the period for reply specified above is less than thirty (30) days, a reply - If NO period for reply is specified above, the maximum statutory period w - Failure to reply within the set or extended period for reply will, by statute, Any reply received by the Office later than three months after the mailing earned patent term adjustment. See 37 CFR 1.704(b).	36(a). In no event, however, may a reply be time within the statutory minimum of thirty (30) days will apply and will expire SIX (6) MONTHS from a cause the application to become ABANDONE	ely filed swill be considered timely. the mailing date of this communication. O (35 U.S.C. § 133).				
Status						
1)⊠ Responsive to communication(s) filed on <u>16 July 2003</u> .						
2a) ☐ This action is <b>FINAL</b> . 2b) ☑ This	_ <del>_</del>					
3) Since this application is in condition for allowar	3) Since this application is in condition for allowance except for formal matters, prosecution as to the ments is					
closed in accordance with the practice under E	closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11, 453 O.G. 213.					
Disposition of Claims						
4)⊠ Claim(s) <u>1-36</u> is/are pending in the application.						
4a) Of the above claim(s) is/are withdrawn from consideration.						
5) Claim(s) <u>1-34</u> is/are allowed.	5)⊠ Claim(s) <u>1-34</u> is/are allowed.					
6)⊠ Claim(s) <u>35 and 36</u> is/are rejected.						
· _ · · · · · · · · · · · · · · · · · ·	Claim(s) is/are objected to.					
8) Claim(s) are subject to restriction and/or	r election requirement.					
Application Papers						
9)☐ The specification is objected to by the Examiner.						
10) $oxine$ The drawing(s) filed on <u>16 July 2003</u> is/are: a) $oxine$ accepted or b) $oxine$ objected to by the Examiner.						
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).						
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).						
11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.						
Priority under 35 U.S.C. § 119						
12)⊠ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).						
a)⊠ All b)□ Some * c)□ None of:						
1. Certified copies of the priority documents have been received.						
2. Certified copies of the priority documents have been received in Application No						
3. Copies of the certified copies of the priority documents have been received in this National Stage						
application from the International Bureau (PCT Rule 17.2(a)).						
* See the attached detailed Office action for a list of the certified copies not received.						
Attachment(s)						
1) Notice of References Cited (PTO-892)	4) Interview Summary	(PTO-413)				
2) Notice of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail Da	Paper No(s)/Mail Date				
3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  Paper No(s)/Mail Date 1103.  5) Notice of Informal Patent Application (PTO-152)  6) Other:						

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#### **DETAILED ACTION**

### Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

- (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.
- 2. Claims 35 and 36 are rejected under 35 U.S.C. 102(e) as being anticipated by US patent 6,281,513 (Takenaka). In reference to claim 34, Takenaka teaches a lithographic method for transferring a pattern onto a particle-sensitive substrate with at least one writing beam, wherein secondary electrons released from the substrate by the writing beam are detected (column 1 lines 6-38). In reference to claim 36, Takenaka teaches a lithographic process wherein the pattern is transferred to the particle-sensitive substrate with a plurality of writing beams, and wherein a secondary electron intensity corresponding to each one of the writing beams are detected (column line 26-clumn 2 line 41).

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## Allowable Subject Matter

The following is a statement of reasons for the indication of allowable 3. subject matter: in reference to claims 1-34, the prior art searched and cited failed to clearly teach or fairly suggest, a particle-optical arrangement, having a beam changing arrangement comprising a comb lens having at least one row of a plurality of field source members for providing a common spatial region with at least one of an electric field and a magnetic field, for acting on the beams entering the common field region, and wherein the row extending in the first direction As disclosed in claim 1 and 29. The prior art searched and cited failed to teach or fairly suggest a particle-optical deflecting arrangement for deflecting at least one beam of charged particles, wherein the deflecting arrangement comprises: a comb lens having at least one row of a plurality of field source members, the row extending in the first direction, and a driver arrangement for controlling source strengths of the individual field source members such that at least a dipole field is generated in a field region passed by the beam, the dipole field deflecting the beam as disclosed in claims 15, 19 and 26.

#### Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. US patents; 6,265,719, (Yamazaki et al), 5,719,623 (Kinoshita) and US patent publication 2004/0113092 (Knippelmeyer), 2003/0066961 (Kienzle et al), 2004/0084621 (Kienzle et al), 2004/0105160 (Kienzle et al). All of the cited US references contain art similar to that being claimed by applicant, more specifically, electron lithography systems and apparatuses.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Johnnie L Smith II whose telephone number is 571-272-2481. The examiner can normally be reached on Monday-Thursday 7-4 P.M. and Alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John R Lee can be reached on 571-272-2477. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Johnnie L Smith II

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Examiner

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ЛЬ́ЗП

//JOHN R. LEE

SUPERVISORY PATENT EXAMINER

TECHNOLOGY CENTER 2800